

**REMARKS**<sup>1</sup>

In the outstanding Final Office Action, the Examiner objected to claim 15 for minor informalities; and rejected claims 1-18 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0016444 to Brown et al. ("Brown") in view of Japanese Patent Publication No. 08-101367 to Yuji ("Yuji").

By this amendment, Applicants have amended claims 1, 8, 9, 15, and 16. Claims 1-18 remain pending in this application.

**I. Objection to Claim 15**

The Examiner objected to claim 15 for allegedly containing various informalities. See Office Action, page 2. Although Applicants do not necessarily agree with the Examiner's allegations, Applicants have amended claim 15, as suggested by the Examiner, in an attempt to expedite prosecution. Accordingly, Applicants respectfully request that the Examiner withdraw the objection to claim 15.

**II. Rejection Under 35 U.S.C. § 103(a)**

Applicants respectfully traverse the rejections of claims 1-18 under 35 U.S.C. § 103(a), because a *prima facie* case of obviousness has not been established. To establish a *prima facie* case of obviousness, the prior art (taken alone or in combination) must teach or suggest all the claim limitations. See MPEP § 2142, 8th Ed., Rev. 5 (August 2006). Moreover, "in formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in

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<sup>1</sup> The Office Action contains statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

the manner claimed. " USPTO Memorandum from Margaret A. Focarino, Deputy Commissioner of Patent Operations, May 3, 2007, page 2. "[T]he analysis supporting a rejection ... should be made explicit" and it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements in the manner claimed." Id. (citing KSR Int'l Co. v. Teleflex, Inc., No. 04-1350 (U.S. Apr. 30, 2007)).

In this application, no *prima facie* case of obviousness can be established for at least the reason that the references, in combination, fail to teach or suggest each and every element of the claims.

For example, Brown fails to teach or suggest a combination including "forming a 3D image by an integral photography system or a beam reproduction system from synthesis parallax images displayed on the screen in units of arrayed sub regions," as recited in amended claims 1 and 9. Brown discloses "a 3-D autostereoscopic display" (paragraph [0044]), wherein "if one views the image from above ... the left eye 13 will see the left view (including pixels 113) and the right eye will see the right view (including pixels 112)" (paragraph [0048]). Then, Brown discloses that "left and right information may be arranged on pixel array 11 such that images directed toward the left eye 13 and images directed toward the right eye are interlaced." Brown, paragraph [0067]. Brown thus teaches forming 3D images using a stereoscopic system.

Applicants further note that the disclosure of Brown is directed to the "binocular scheme" and its extended scheme, a "multinocular scheme" for a stereoscopic system. This may be seen from FIG. 1B of Brown, wherein light beams are illustrated as being concentrated in one point close to the observer's eyes, and FIG. 4 which illustrates that

light beams are concentrated in an eye. Further, Brown discloses in paragraph [0068] that the distance between right and left views is 55 mm, indicating nothing but an interocular distance. Brown does not teach or suggest "forming a 3D image by an integral photography system or a beam reproduction system from synthesis parallax images displayed on the screen in units of arrayed sub regions," as recited in amended claims 1 and 9 (emphasis added).

Yuji fails to cure the deficiencies of Brown. Applicants note that the disclosure of Yuji is premised on a "binocular scheme." That is, in Yuji, an observer is provided with an image for the right eye and an image for the left eye, i.e., a stereoscopic system. Yuji thus also fails to teach or suggest "forming a 3D image by an integral photography system or a beam reproduction system from synthesis parallax images displayed on the screen in units of arrayed sub regions," as recited in amended claims 1 and 9 (emphasis added).

Applicants note that stereoscopic imaging systems including the binocular scheme and like schemes (including the multinocular scheme) do not significantly decrease the resolution. Thus, unlike the present invention, Brown et al. or Yuji et al. would not be motivated to improve the resolution.

As noted above, the claimed invention includes "forming a 3D image by an integral photography system or a beam reproduction system from synthesis parallax images displayed on the screen in units of arrayed sub regions," as recited in amended claims 1 and 9, which is different from the stereoscopic systems disclosed in Brown and Yuji. The claimed "integral photography system or beam reproduction system" may

artificially reproduce the reflected light which emerges from an object, essentially differing from the stereoscopic system as a 3D image display scheme.

As described in Applicants' specification at, for example, page 5, lines 3-5, the claimed invention may solve the problem of the resolution deterioration in the integral photography system or the beam reproduction system. More specifically, Applicants note that the teaching of the claimed invention is based on the outcomes of devoted research in the arrangement of sub pixels, directed to solve the resolution deterioration problem due to only one color element being focused.

In addition, Applicants' specification describes the difference between the integral photography system and the multinocular or stereoscopic scheme, with reference to its FIG. 4 (showing the integral photography system) and FIG. 5 (showing the multinocular scheme). As may be seen from these figures, the multinocular or stereoscopic schemes of Brown and Yuji are different from Applicants' claimed invention. That is, neither Brown nor Yuji teach or suggest a combination including Brown does not teach or suggest "forming a 3D image by an integral photography system or a beam reproduction system from synthesis parallax images displayed on the screen in units of arrayed sub regions," as recited in amended claims 1 and 9 (emphasis added).

For at least the reason that the references, whether taken alone or in combination, fail to teach or suggest every element recited in amended claims 1 and 9, a *prima facie* case of obviousness cannot be established. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 1 and 9 under 35 U.S.C. § 103(a).

Claims 2-8, and 17 depend from claim 1, and claims 10-16, and 18 depend from claim 9. Claims 2-8, and 171 and claims 10-16, and 18 thus respectively require all of the elements recited in claims 1 and 9. Because Brown and Yuji fail to teach or suggest every element recited in claims 1 and 9, that combination of references also fails to teach or suggest every element required by claims 2-8 and claims 10-18. A *prima facie* case of obviousness thus cannot be established with respect to claims 2-8 and 10-18. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 2-8 and 10-18 under 35 U.S.C. § 103(a).

Applicants further note, with reference to dependent claims 8 and 16, that neither Brown nor Yuji teach or suggest a combination including “sub pixels of the same color are laid consecutively out in a V-shaped pattern,” as recited in amended claims 8 and 16. Yuji, as shown in FIG. 1, for example, shows an example in which sub pixels of different colors (i.e., not consecutive sub pixels of the same color) are laid out in a V-shaped pattern, or in which sub pixels of the same color are laid out in a diagonal pattern. This is different from the amended claims 8 and 16 wherein “sub pixels of the same color are laid out consecutively in a V-shaped pattern” (emphasis added). Claims 8 and 16 are allowable over Brown and Yuji for at least this additional reason.

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

Please grant any additional extensions of time required to enter this response  
and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

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By:   
Darrell D. Kinder, Jr.  
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